

## **The U.S. Army Projects Collection, 1964-1984**

**6.85 cubic feet**

**JPL 154**

### **History**

Beginning in 1980, the U.S. Army Development and Readiness Command (DARCOM) asked the Jet Propulsion Laboratory (JPL) to assist in cost and schedule control on some of its major projects. DARCOM had experienced significant overruns and schedule postponements on several projects. JPL was assigned to conduct Independent Project Assessments (IPAs) of two DARCOM projects. JPL was also assigned to produce an IPA Handbook for use by other agencies of contractors to conduct IPAs. Manager of the IPA Program at JPL was James N. Wilson.

The first DARCOM project that JPL conducted an IPA for was the Meteorological Data System (MDS). The project was started in November 1981. The MDS Project was developed by the Army to improve field artillery targeting accuracy by providing atmospheric wind density and wind data derived from balloon borne expendable units to artillery batteries. DARCOM assigned JPL to conduct an IPA of the MDS Project to evaluate the cost and schedule status, and to recommend actions for reducing cost and schedule risk during the production phase. The IPA Final Report, dated October 15, 1982, was written by James N. Wilson.

The second DARCOM project that JPL conducted an IPA for was the Artillery Time Fuze Program. This was originally to have been done after completion of the IPA for the MDS Program, but was instead done concurrently. The Army had three artillery fuzes in states of development and production. They were the M577 Mechanical Timer Fuze, the M724 Electronic Timer Fuze, both in production, and the M762 Electronic Timer Fuze, in advanced development. JPL made independent assessments of each of them, and made recommendations as to which one or ones to carry on. The IPA Final Report, dated December 15, 1982, was written by James N. Wilson.

The first draft of the IPA Handbook was completed in January 1983. DARCOM requested significant changes, and the final report of the IPA Handbook was issued on September 30, 1983. With the issue of the final report, the IPA Program with DARCOM was judged completed. The IPA Project originally consisted of four phases: Preparation, Methodology Development, Methodology Verification, and Full Implementation. The Project was considered finished after the end of Phase II, due to lack of funds.

In early December 1982, JPL was requested to assist in the Army's Pershing II Program. The Pershing II Program was operated by the U.S. Army Missile Command, Redstone Arsenal, Alabama. The Pershing II Missile was developed in the late 1970s and early 1980s. It was originally deployed in West Germany in 1983, and achieved full operational capability in Europe in late 1985. In December 1987, the United States and Soviet Union signed the Intermediate Range Nuclear Forces (INF) Treaty, which required the elimination of nuclear weapons having a range of 500-5,500 kilometers (300-3,400 miles). The two missile systems in this category were the U.S. Pershing II and Russian SS-20 missiles. In September 1988, the U.S. Army began eliminating Pershing missile rocket motors through static firing. In May 1991, the first and second stage rocket motors of the last Pershing II missiles were eliminated at Longhorn Army Ammunition Plant, Texas.

In March 1983 a quality audit of the Martin-Marietta Orlando facility engaged in the production of Pershing II missiles was conducted by JPL. In May 1983, JPL staff completed a quality audit of the Pershing II Adaption Kit manufactured by AVCO Systems Division, Wilmington, MA. The Adaption Kit was the safing, arming and fuzing subassembly for the Pershing II warhead section. Task Manager at JPL for the Pershing II audits was James N. Wilson.

In August 1982, JPL was assigned support of the IPA of the Combat Vehicle Heading Reference System, or Set (CVHRS) conducted by DARCOM. JPL support was completed in October 1982. JPL acted as a consultant and provided technical expertise and specialization. Jack Gardner was the JPL contact to the CVHRS Independent Program Assessment project. The CVHRS used the NAVSTAR Global Positioning System (GPS) to determine direction and heading. There are three reports pertaining to NAVSTAR GPS in the collection.

All four of the projects in the collection involved various Army organizations. According to a hand-drawn organization chart, the U.S. Army Electric Command (ERADCOM), based at Ft. Monmouth, NJ, was subordinate to DARCOM. The Atmospheric Sciences Laboratory (ASL) and Combat Surveillance and Target Acquisition Laboratory (CSTAL) were subordinate to ERADCOM. ERADCOM should not be mistaken for the U.S. Army Armament Research and Development Command (ARRADCOM), which was also involved with the Time Fuze Program.

## **Provenance**

The collection was transferred from Jack N. James, Assistant Laboratory Director for Defense Programs, Section 800, to the JPL Records Center on February 6, 1985. The collection was transferred from the Records Center to the JPL Archives in May 1989, with other unrelated materials as part of Accession 1989-11. The shipment consisted of 9 c.f. before processing.

## **Collection Arrangement and Description**

The collection documents JPL activity making Independent Project Assessments for DARCOM. The JPL documents are dated from 1981-1984 while the supporting materials are from 1964-1983. Most of the JPL materials and notes appear to originate from program manager James N. Wilson.

The collection is divided into six series: Independent Project Assessment (IPA) Final Reports, Meteorological Data System IPA Materials, Artillery Fuze IPA Materials, Pershing II IPA Materials, Combat Vehicle Heading Reference System IPA Materials and Software Assessment Methodology Materials.

Independent Project Assessment (IPA) Final Reports (folders 1-8). Included in this series are correspondence and notes involving the IPA program, a folder involving finding the staff at JPL to comprise the IPA program, and monthly reports of the Defense Programs Office regarding the IPA program. Additionally, the final reports involving the Meteorological Data System, Time Fuze Programs and the IPA Handbook, all written by James Wilson, are represented in the series.

Meteorological Data System (MDS) IPA Materials (folders 9-49). Included in the collection are folders of correspondence and handwritten notes. The correspondence file includes information about field trips conducted by JPL IPA personnel to U.S. Army installations or contractors. They include the U.S. Army Combat Surveillance and Target Acquisition Laboratory (CSTAL), at Ft. Monmouth, New Jersey, the Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico, and Bendix Corporation, Environmental and Process Instruments Division, Baltimore, Maryland. ASL was the overall mission designer responsible for Meteorological equipment for the Army. Bendix was the contractor for the MDS system software.

The bulk of the series consists of background material regarding the Meteorological Data System, provided to JPL either by DARCOM or a contractor. A list of the titles of the documents is included in the collection (folder 11). The MDS IPA Document File is organized by document number. The documents vary from documents of a single page to documents of several inches thick. Several documents that were not numbered are filed at the end of the series. Of the thirty-one documents listed, only one is not present in the collection. The span dates of the MDS IPA Document File are from 1977 to 1982. They are composed of contract information, design proposals, project organization, system specifications, and cost, schedule and status reports.

Artillery Fuze IPA Materials (folders 50-143). According to a May 21, 1982 handwritten organization chart, the Fuze IPA Program included JPL Personnel from four offices: Office of Flight Projects, Office of Technical Divisions, Office of Engineering and Review, and the Defense Programs Office. The Applied Mechanics Division of the Office of Technical Divisions acted as technical support for the IPA Program.

Included in the collection are folders of correspondence and handwritten notes, similar to the documents in the MDS series. Eastman Kodak Company manufactured the M724 Fuze while Bulova Systems and Instruments Corporation of Valley Stream, NY and Hamilton Technology, Inc., of Lancaster, PA manufactured the M577 Fuze, and Motorola manufactured the M762 Fuze. Various parts of the fuzes

were contracted out as well. The M724 Clock Oscillator and Interface Module was manufactured by Timex Defense Products Corporation of Watertown, CT. NCR manufactured the original M724 Counter Module and the new M724 Timer Module. ERADCOM's Harry Diamond Laboratory was also involved in the manufacturing process. Ballistic tests of many of the fuzes were conducted at Jefferson Proving Grounds, Madison, IN. JPL personnel visited each of these places during the conduct of the assessment.

The Fuze IPA Document File is organized by document number. An index is located at the beginning of the series (folder 53). Eighty-three items are listed, although the numbering system was extended to 88 items. One number was not used, and two items are missing, both noted as "confidential" in the list. Span dates of the documents in the Document File are from 1964 to 1982. The type of documents is very similar to that of the MDS documents, including contract information, correspondence and reports.

Pershing II IPA Materials (folders 144-261). The Pershing II materials are similar to the materials of the other series in the collection. There are files of general correspondence and handwritten notes. The contractor in charge of the manufacture of the Pershing II adaption kits was AVCO Systems Division of Wilmington, MA. Most of the materials involve the adaption kits, with JPL briefings and visits to AVCO.

The Pershing II IPA Document File is organized by document number. An index is located at the beginning of the series (folder 148). Eighty-one items are listed, although nine are not found in the collection. Three appear not to have been delivered, three were noted in the list as "secret" and three were listed as "confidential."

The documents include design reviews, correspondence, presentation notes, reports, purchase descriptions, and two sets of blueprint drawings. The blueprints depict the controller assembly of the Adaption Kit, and interface control drawings of the Pershing II warhead section. The span dates of the documents are 1979-1983. A few unnumbered Pershing II materials follow after the numbered documents. They include contract information and Trouble Reports. Trouble Reports reported on failed items during tests at AVCO Systems Division. The failed items were usually alternators, transistors, resistors or capacitors. The reports note a description of the failure, and any actions taken. The trouble reports are arranged by trouble report number. The numbers are not inclusive. Some of the larger reports have been removed from their original locations in the files and given a separate file.

Combat Vehicle Heading Reference System (CVHRS) (folders 262-286). The CVHRS series has correspondence and handwritten note folders similar to the above series. The document files are not numbered, however, and are arranged in chronological order. They are comprised primarily of correspondence and reports. Three folders composed of reports on the NAVSTAR Global Positioning System (GPS) are included at the end of the series.

IPA Software Assessment Methodology (folders 287-295). The final chapter of the IPA Handbook was on Software Assessments. This series documents the formulation of a methodology needed to achieve a comprehensive software assessment. After a general correspondence file, the series is arranged chronologically, with span dates of 1981-1983.

Oversize Item (folder 296). There is one oversize item, document number 83 from the Fuze IPA Document File.

JPL Discreet Item. One item involving JPL staffing in the Independent Project Assessment Program was stamped "JPL Discreet." That item has been removed to a box at the end of the collection. Its original position has been marked with a separation sheet.

## **Conservation/Preservation**

Standard preparations of documents for long term storage were completed.

## **Separation Statement**

The original accession (1989-11) was split up into seven separate collections: U.S. Army Projects Collection (this collection), Office of the Director Collection (JPL 142), JPL Executive Council Collection (JPL 150), DSN Radio Science Collection (JPL 155), Mariner Mars 1969 Reliability and Quality Assurance Document Collection, MJS 77 Configuration Collection, and the Optical Image Enhancement Feasibility Study Collection.

## **Finding Aids**

Lists of the Independent Project Assessment Materials given to JPL as background material are located in the collection (folders 11, 53, 148). No other finding aids exist for the collection.

## **FILE FOLDER LIST**

### **Box 1 of 23 - Independent Project Assessment (IPA) Final Reports**

- Fld. 1 DARCOM Independent Project Assessment Program (IPA) Notes, 1981-1983.
- Fld. 2 IPA Staffing, 1981-1982.
- Fld. 3 Defense Programs Office, IPA Program, Project Management Reports, November 1981-September 1983. [folder 1 of 2]
- Fld. 4 [folder 2 of 2]
- Fld. 5 James N. Wilson, IPA, U.S. Army Meteorological Data System, Final Report, JPL D-257, October 15, 1982.
- Fld. 6 James N. Wilson, IPA, U.S. Army Time Fuze Program, Final Report, JPL D-394, December 15, 1982.
- Fld. 7 James N. Wilson, Independent Project Assessment Handbook, JPL D-1101, September 30, 1983.
- Fld. 8 Independent Project Assessment Guidelines, October 20, 1983.

### **Meteorological Data System (MDS) IPA Background Material**

- Fld. 9 MDS IPA Correspondence, 1981-1982.
- Fld. 10 MDS IPA handwritten notes, February-June 1982.

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- Fld. 11 MDS IPA Document File List, July 19, 1982.
- Fld. 12 MDS IPA Document File. 1. MDS Project Organization, November 1981.
- Fld. 13 2. "Required Operational Capability for the Field Artillery Meteorological Acquisition System," August 2, 1979.
- Fld. 14 3. "Field Artillery Meteorological Acquisition System, System Specification and Amendments 1-3, September 12, 1977.
- Fld. 15 4. Bendix Meteorological Data System Program Review, February 9, 1982.
- Fld. 16 5. "Program Status Briefing to LTG Robert J. Lunn," September 28, 1981.
- Fld. 17 6. "Field Artillery Meteorological Acquisition System Work Breakdown Schedule," Bendix, February 1980.
- Fld. 18 7. Award/Contract DAAK20-79-C-0500, ERADCOM/Bendix, March 13, 1979.
- Fld. 19 8. Field Artillery Meteorological Acquisition System Monthly Progress Reports, December 1979-December 1981.
- Fld. 20 9. Scheduled Cost/Schedule Status Reports, Bendix Environmental and Process Instruments Division, December 31, 1979-December 30, 1981.
- Fld. 21 10. Bendix Cost Growth Proposal, January 16, 1980.
- Fld. 22 11. Evaluation of Cost Growth Proposal on Contract, February 28, 1980.
- Fld. 23 12. Contract Cost Growth Proposal, March 4, 1981.

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- Fld. 24 13. CRB, Meteorological Data System, August 1980.
- Fld. 25 14. MDS, AN/TMQ-31, Acquisition Plan," Briefing for Colonel Murry, March 9, 1982.
- Fld. 26 15. "Independent Assessment of the MDS Project," presentation to JPL from Bendix, April 28-29, 1982.
- Fld. 27 16. Electronics System Procurement Branch Procurement and Production Directorate, with Amendments, February 1978. [folder 1 of 2]
- Fld. 28 [folder 2 of 2]
- Fld. 29 17. Proposal Submission, RFQ No. DAAB07-78-Q-2704, with Amendments 1 and 2, March 10, 1978. [folder 1 of 3]
- Fld. 30 [folder 2 of 3]

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- Fld. 31 [folder 3 of 3]
- Fld. 32 18. Field Artillery Meteorological Acquisition System (FAMAS) - Part I, Abstract, Bendix Environmental and Process Instruments Division, February 1978.
- Fld. 33 19. FAMAS- Part II, Vol. 1, Design Proposal, February 1978. [folder 1 of 3]
- Fld. 34 [folder 2 of 3]
- Fld. 35 [folder 3 of 3]
- Fld. 36 20. FAMAS, Part II, Vol. 1, Design Proposal, Attachment A- Material, February 1978.
- Fld. 37 21. FAMAS, Part II, Vol. 2, Producibility Engineering and Planning Proposal, February 1978.
- Fld. 38 22. FAMAS, Part II, Vol. 3, Software Development Proposal, February 1978.
- Fld. 39 23. FAMAS, Part II, Vol. 4, Technical Manuals and Training Proposal, February 1978.
- Fld. 40 24. FAMAS, Part III, Vol. 1, Design to Cost Proposal, February 1978.

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- Fld. 41 25. FAMAS, Part III, Vol. 2, Development Cost Proposal, February 1978.
- Fld. 42 26. FAMAS, Part IV, Management Proposal, February 1978.
- Fld. 43 27. Negotiations, Questions and Answers, April 28, 1978. [folder 1 of 2]
- Fld. 44 [folder 2 of 2]
- Fld. 45 28. Disposition Form Request for Management Review, June 15, 1978.
- Fld. 46 30. Development Plan for the Meteorological Data System (MDS), AN/TMQ-31 (FAMAS), July 15, 1980. [folder 1 of 2]
- Fld. 47 [folder 2 of 2]
- Fld. 48 31. Meteorological Data System (MDS) Program Review, January 15, 1981.
- Fld. 49 MDS IPA Document File, miscellaneous documents, unknown numbers, n.d.

**Box 6 of 23 - Artillery Fuze IPA Background Material**

- Fld. 50 Fuze IPA correspondence, notes, 1982.
- Fld. 51 Fuze IPA handwritten notes, 1982.
- Fld. 52 James N. Wilson, IPA, U.S. Army Time Fuze Program Final Report, Draft, corrections by KRM, December 15, 1982.

- Fld. 53 Fuze IPA Document File list, June 29, 1982.
- Fld. 54 1. Ammunition Fuze Data, May 7, 1982.
- Fld. 55 2. "Quality Assurance Fuze Production System," by John J. O'Brien, Director, Product Assurance Directorate, ARRCOM, n.d.
- Fld. 56 3. "PEP 763 – M577 MTSQ Fuze, Industrial Preparedness Planning Analysis" Bulova Systems and Instrument Corporation, June 1980.
- Fld. 57 4. "PEP 399, M577 Fuze, Industrial Preparedness Planning Analysis," Hamilton Technology, April 1980.
- Fld. 58 5. Executive Summary, 155 MM Projectile, M483, Industrial Preparedness Planning Analysis Report, U.S. Army Materiel Readiness Command, April 1982.
- Fld. 59 6. 155M Projectile, M483, Industrial Preparedness Planning Analysis, April 1982.
- Fld. 60 7. "Joint Precision Component Study, 1978-1980," June 1, 1981.
- Fld. 61 8. "Joint Precision Component Study, 1976-1978," May 1, 1978.

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- Fld. 62 9. Initial Fuze Background Data Package, received from DARCOM HQ, April 13, 1982.
- Fld. 63 10. Award/Contract Excerpts, Harry Diamond Laboratories, September 14, 1979.
- Fld. 64 11. "M724 Electronic Time Fuze Contract History," March 9, 1981.
- Fld. 65 12. "First Article Test Results," Eastman Kodak Company, September 1981.
- Fld. 66 13. "Times and Errors in Field Setting the M577 Product-Improved Mechanical Time Fuze," U.S. Army Human Engineering Laboratory, May 1980.
- Fld. 67 14. "M724 vs. M577, in Current Year Dollars," L. P. Mitchell, Eastman Kodak, July 9, 1980.
- Fld. 68 15. "M724 Electronic Time Fuze," Department of the Army correspondence, January 10, 1980.
- Fld. 69 16. Information Paper, Army Procurement of Electronic Time (ET) and Mechanical Time (MT) Fuzes," n.d.
- Fld. 70 17. M724 Electronic Time Fuze IPF Specification Capacity, n.d.
- Fld. 71 18. Program Plan, M724 Fuze Schedule, May 18, 1982.
- Fld. 72 19. M587 ET Fuze, Technical and Cost Data, November 26, 1980.
- Fld. 73 20. "The M724 Electronic Time Fuze," L. P. Mitchell, July 8, 1980.
- Fld. 74 21. "M724 Electronic Time Fuze Briefing to Dr. Walter Laberge," L. P. Mitchell, August 14, 1980.
- Fld. 75 22. "Army Artillery Time Fuzes and Mortar Fuzes," House Appropriations Committee, March 7, 1980.
- Fld. 76 23. Kodak Comments, Army Artillery Time Fuzes and Mortar Fuzes, July 17, 1980.
- Fld. 77 24. "A Request for Support of the M577 MISQ Fuze for the Consideration of the Mechanical Fuze Base," February/March 1980.
- Fld. 78 25. Acceptance Test Procedure for Artillery Fuzes, May 17, 1982.
- Fld. 79 26. M724 ET Fuze, Harry Diamond Laboratory, May 13, 1982.
- Fld. 80 27. M577 Fuze Diagrams, May 25, 1982.
- Fld. 81 28. M577/M582 System Summary, May 25, 1982.
- Fld. 82 29. XM762 Electronic Time Fuze, photocopy of photographs, May 25, 1982.

- Fld. 83 30. "ET/MT Fuze Procurement Issue," ARRCOM, January 9, 1982.
- Fld. 84 31. "DA Study Group to Review ET and MT Fuze Issues – Draft Minutes," December 9-10, 1980.
- Fld. 85 32. Briefing on ET/MT Fuze Procurement Cost Forecast Study and Review of MOB Issues," December 31, 1980.
- Fld. 86 33. "M724 ET Fuze," Norm Doctor, June 2, 1982.
- Fld. 87 34. "M724 Break Out Issues," Clyde Warner, Harry Diamond Laboratory, June 2, 1982.
- Fld. 88 35. "M724 Technical Status," Bob Johnson, Harry Diamond Laboratory, June 2, 1982.
- Fld. 89 36. "M724 Fuze Contract History," Bob Johnson, HDL, June 2, 1982.
- Fld. 90 37. "Presentation in Support of M577 MTSQ Fuze for ICM Use," Bulova Systems and Instruments Corporation, October 17-18, 1979.
- Fld. 91 38. "General Officer Review, Electronic Time Fuze System, Minutes," July 12, 1978.
- Fld. 92 39. "Department of the Army Approved Qualitative Materiel Requirements for an Accurate Time Fuze for Artillery Projections," Combat Developments Command, November 23, 1964.
- Fld. 93 40. "Independent Evaluation Report (IER) of Operational Test II for the Electronic Time Fuze System," Army Field Artillery School, December 7, 1978.
- Fld. 94 41. "Industrial Facility Survey- Hamilton Technology, Inc.," January 8, 1982.
- Fld. 95 42. "Preliminary Report on Artillery Time Fuzes," February 25, 1980.
- Fld. 96 43. Correspondence and Backup Data Supporting Production Capability, Bulova Systems and Instruments Corporation, March 4, 1981.
- Fld. 97 44. "Organization Facilities and Experience," Bulova Systems and Instruments Corporation, n.d.
- Fld. 98 46. Letter to D. Griffin, from Bulova Systems and Instruments Corporation, cover letter for #47, August 18, 1981.

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- Fld. 99 47. Command Review of Industrial Base (CRIB) Survey of Bulova Systems and Instruments Corp., April 20-May 1, 1981.
- Fld. 100 48. CRIB Survey, Hamilton Technology, Inc., June 1980. [folder 1 of 2]
- Fld. 101 [folder 2 of 2]
- Fld. 102 49. "M587/M724 ET Fuze Data for the House Appropriations Committee: Briefing," November 14, 1979.
- Fld. 103 50. "M587/M724 ET Fuze Data for the House Appropriations Committee: Fuze Production Contact Summary, n.d.
- Fld. 104 51. "Fuze Study Briefing," Munitions Command, May 1981.
- Fld. 105 52. "Production Base for Precision Fuze Components," Manufacturing Technology Directorate, U.S. Army Munitions Command, October 26, 1970.
- Fld. 106 53. "Production Base for Precision Fuze Components," Manufacturing Technology Directorate, January 6, 1971.
- Fld. 107 54. "Production Base for Precision Components and Fuzes and Hamilton Watch Company Fuze Factory," Manufacturing Technology Directorate, April 22, 1971.
- Fld. 108 55. "Production Base for Precision Components and Fuzes," Manufacturing Technology Directorate, September 6, 1972.
- Fld. 109 56. "Fuze Production Base Study," U.S. Army Munitions Command, Manufacturing Technology Directorate, November 8, 1972.

Fld. 110 57. "Fuze Production Base Study," Manufacturing Technology Directorate, November 20, 1972.

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Fld. 111 58. "Decision Briefing on the Production Base for Precision Components for Fuzes," November 1970.

Fld. 112 59. Handout Extracted from "Fuze Production Base Study Briefing," November 20, 1972.

Fld. 113 60. "Briefing on Hamilton Watch Co. Fuze Factory," Manufacturing Technology Directorate, US Army Munitions Command, March 25, 1971.

Fld. 114 61. "Technology and Facility Program for 105MM and 120 MM Tank Ammunition," K. Kollis, July 21, 1978.

Fld. 115 62. "Project Control Systems," Barbara J. Byrnes, n.d.

Fld. 116 63. "Production Base for Precision Fuze Components Briefing," Manufacturing Technology Directorate, August 1970.

Fld. 117 64. "M65 Industrial Engineering Study Report Safety Body Adapter Department Team 2," October 20, 1971.

Fld. 118 65. "M65 Industrial Engineering Study Report, Assembly Department Team No. 1, Appendix A," October 12, 1971.

Fld. 119 66. "The Fuze Environment, Comparative Analysis- M577 and M724 Fuzes," Systems Associates Management Company (SAMECO) Briefing, n.d.

Fld. 120 67. "Analysis of the Comparative Production Base Burden for Mechanical and Electric Time Fuzes," Revision 1, May 23, 1978.

Fld. 121 68. "Fuze Readiness, a Tale of Two Industries," 1978 Annual Meeting Fuze Section, March 16, 1978.

Fld. 122 69. "Comparative Analysis of the M577 and M724 Fuzes and Associated Technology," SAMECO, June 1982.

Fld. 123 70. "The XM762 Electronic Time Fuze," Motorola/ARRADCOM, n.d.

Fld. 124 72. "Independent Government Cost Estimate for the XM724/XM587 E2 ET Fuze, Initial Production Facility," n.d.

Fld. 125 74. "Final Report of the Operational Test II for the XM587E2/ XM724 and XM36E1 Electric Fuze System," Department of the Army, November 8, 1979.

Fld. 126 75. "Independent Evaluation Report of Operational Test II for the Electric Time Fuze System XM587E2/XM724/XM36E1," Maj. Michael W. Hustead, December 7, 1978.

Fld. 127 76. "Procurement Plan No. 79-1, XM587E2/XM724 Electronic Time Fuze," October 6, 1978.

Fld. 128 77. "Independent Government Cost Estimate XM724 ET Fuze FY79 Procurement," Frank Vrataric, n.d.

Fld. 129 78. "Report of the Ad Hoc Group to Review the Army Decision to Procure the Electric Time Fuze System," January 10, 1980.

Fld. 130 79. M577/M724 Production Costs correspondence, September 11, 1980.

Fld. 131 80. "DA Study Group to Review ET and MT Fuze Issues, Draft Minutes," December 9-10, 1980.

Fld. 132 81. "Recommendations from the DA Study Group Regarding M724 Electronic Time Fuze Program," December 17, 1980.

Fld. 133 82. "DA Study Group to Review ET and MT Fuze Issues," December 18, 1980.

Fld. 134 84. "Proposed Product Improvement Program to Add a Manual Hand-Set Backup to the M587/M724 Electronic Time Fuze," March 26,



- 1980.
- Fld. 135 85. "Proposed Product Improvement Program for the M587/M724 Electronic Time Fuze to Provide a Manual Hand-Set Back-up with Either Contact Remote Set of Inductive Remote Set," c. 1980.
- Fld. 136 86. Comments on Proposed Product Improvement Plan for M587/ 724 ET Fuze, April 2, 1980.
- Fld. 137 87. Correspondence, Major General Allen H. Light to Major General Emmett Page regarding M724 Product Improvement Plan, July 22, 1981.
- Fld. 138 88. Information Letter, Regarding M724 Product Improvement Plan, June 11, 1981.
- Fld. 139 XM724 and XM762 Electronic Time Fuze Drawings, n.d.
- Fld. 140 Fuze Contract and Modifications, Harry Diamond Laboratory/Eastman Kodak, 1981. [folder 1 of 3]

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- Fld. 141 [folder 2 of 3]
- Fld. 142 [folder 3 of 3]
- Fld. 143 Eastman Kodak Company, Pictorial Sampling, Government and Commercial Products, October 1980.

Pershing II IPA Materials

- Fld. 144 Pershing II correspondence and materials, 1982-1983. [folder 1 of 2]
- Fld. 145 [folder 2 of 2]
- Fld. 146 Pershing II handwritten notes, 1982-1984.
- Fld. 147 Pershing II Adaption Kit Design Review, 1983-1984.

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- Fld. 148 Pershing II Adaption Kit IPA Documents, September 28, 1983.
- Fld. 149 1. AVCO Systems Division Briefing, "System Division Has Resolved Flight Anomalies," May 23, 1983.
- Fld. 150 2. Critical Design Review, Initial Production Readiness Review, Adaption Kit Subassembly, Atomic Weapon (XM19) and the Fuze Set Impact Atomic Weapon, (XM 1148-XM 1149), Pershing II, August 10-13, 1981. [spiral bound]
- Fld. 151 3. Pershing II Critical Design Review, Initial Production Readiness Review, Ancillary Equipment and Acceptance Inspection Equipment, December 4, 1981.
- Fld. 152 4. Pershing II Production Readiness Review Report, Adaption Kits, Ancillary Equipment, Containers, Warhead Section Trainer, Warhead Simulators, June 1982.
- Fld. 153 5. Acceptance Design Review, Production Readiness Review, Adaption Kit XM267 and Ancillary Equipment, June 21-25, 1982. [spiral bound]

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- Fld. 154 7. Pershing II Briefing, U.S. Army Materiel Development and Readiness Command, n.d.
- Fld. 155 8. Pershing II Safe/Arm Device Schematic, n.d.
- Fld. 156 9. XM19 copies of Viewgraphs, charts, n.d.
- Fld. 157 10. Impact Fuze System, Viewgraphs, n.d.
- Fld. 158 11. Pershing II Adaption Kit, Warhead Section Functional Block Diagram,

n.d.

- Fld. 159 12. Technical Data Package Status, c. 1983.  
Fld. 160 13. Pershing II AIE/ATE Test Set Assembly, n.d.  
Fld. 161 14. Pershing II Hardware Delivery Schedule, August 4, 1983.  
Fld. 162 15. Pershing II Integrated Safe/Arm Device Functional Schematic, n.d.  
Fld. 163 16. Pershing II, Acceptance Test Flow for Flight Mission ED II, n.d.  
Fld. 164 17. Purchase Description, Generator Set, Gas Turbine, October 26, 1981.  
Fld. 165 18. Purchase Description, Generator, Gas Pressure, Propellant Activated, October 20, 1981.  
Fld. 166 19. Sealants Used on the T.A., handwritten note, n.d.  
Fld. 167 20. Purchase Description Update, April 30, 1983.  
Fld. 168 21. Purchase Description, Adaption Kit Subassembly, Atomic Weapon XM19, January 5, 1982.  
Fld. 169 22. Pershing II Overvoltage Problem, July 8, 1983.  
Fld. 170 23. AVCO Corporation, Contract and Modification, 1982-1983.  
Fld. 171 24. Pershing II, Quality Assurance Plan for Pershing II, August 9, 1983.  
Fld. 172 25. Pershing II, Adaption Kit Engineering Development Reliability Plans for JPL, August 9, 1983.  
Fld. 173 25a. Pershing II Full Scale Engineering Development of the XM267 Adaption Kit and Ancillary Equipment, Part I- Technical Volume, November 3, 1980.  
Fld. 174 26. Pershing II XM267 Adaption Kit, Engineering Development Report, Failure Status Summary Report, July 31, 1983.  
Fld. 175 27. Qualification Test Plan for the Pershing II XM 19 Adaption Kit Subassembly, March 1982.  
Fld. 176 28. Pershing II, Report on Early Turbine Failure Due to Lubricant, September-October 1981.  
Fld. 177 29. Excerpt from Final Test Report, Turboalternator-Regulator Assembly for Pershing II Adaption Kit- Phase II, November 20, 1979.  
Fld. 178 30. Pershing II, Selection of SACA to WPCA Optical Interface Components, November 15, 1978.  
Fld. 179 31. Pershing II, IRAD Report, Optical Link, Hybrid Data Transmission, December 4, 1979.  
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**Box 22 of 23 - Oversize**

- Fld. 296 Fuze IPA Document File, 83. "Coordinated Precision Component Plan and Report as of First Quarter, CY 82," August 1981.

**Box 23 of 23 - JPL Discreet Material**

JPL Discreet Material, 1 folder.

**CATALOG DESCRIPTION**

U.S. Army Projects Collection, 1964-1984.

6.85 cu. ft. (21 boxes, 1 oversize box and one half-box)

Beginning in 1980, the U.S. Army Development and Readiness Command (DARCOM) asked the Jet Propulsion Laboratory (JPL) to conduct Independent Project Assessments (IPAs) of two DARCOM projects. JPL was also assigned to produce an IPA Handbook for use by other agencies of contractors to conduct IPAs. Manager of the IPA Program at JPL was James N. Wilson.

JPL conducted Independent Project Assessments of the Meteorological Data System (MDS) and the Artillery Time Fuze Program. These projects were done concurrently during 1982. Beginning in late 1982, JPL was asked to assist DARCOM in conducting quality audits of the Pershing II Weapon System Adaption Kit. JPL also assisted DARCOM in conducting an IPA of the Combat Vehicle Heading Reference System (CVHRS).

The collection consists of correspondence files involving each project, as well as extensive background documentation of each project, needed by JPL to complete the Independent Project Assessment. The files include contract information, design proposals, project organization, system specifications, presentation notes, reports and blueprint drawings of various projects.

Finding aid available in the repository.

**Tracings**

Jet Propulsion Laboratory – History

Jet Propulsion Laboratory – Defense Projects Office

James, Jack N.  
Wilson, James N.  
Gardner, Jack  
U.S. Department of Defense – contracts  
U.S. Army Development and Readiness Command (DARCOM)  
U.S. Army Atmospheric Sciences Laboratory (ASL)  
U.S. Army Combat Surveillance and Target Acquisition Laboratory (CSTAL)  
Meteorological Data System  
Artillery Time Fuze Program  
Pershing II Weapon System  
Combat Vehicle Heading Reference System (CVHRS)  
Field Artillery Meteorological Acquisition System (FAMAS)  
Global Positioning System

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